

TREND STUDY 1-19-96

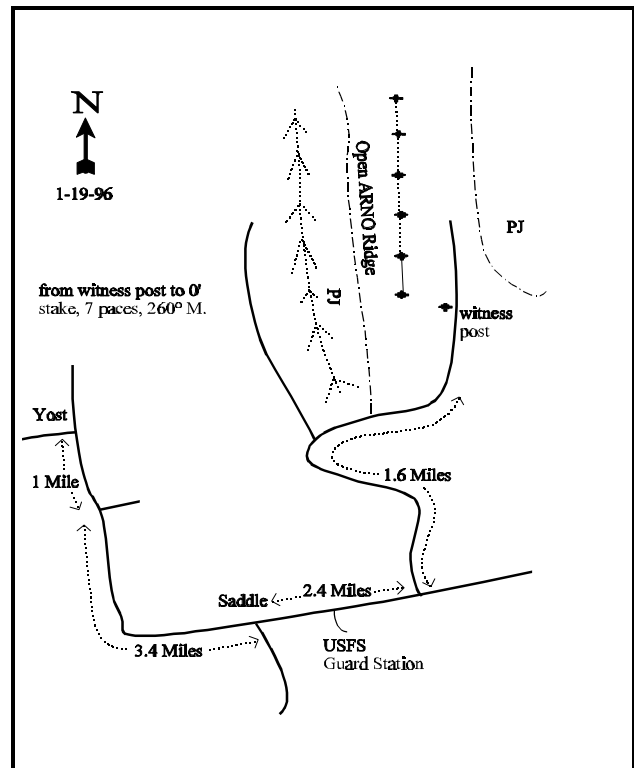
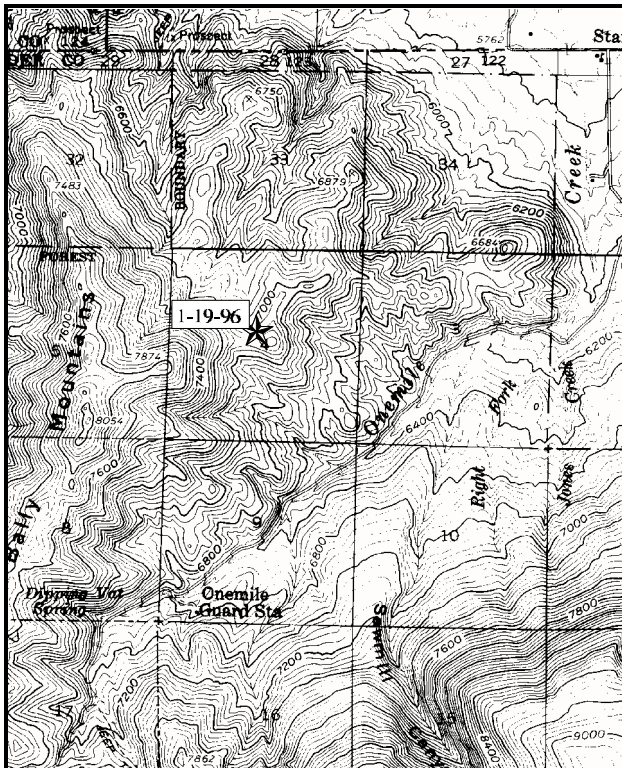
Study site name: Bally Mountain. Range type: Black sagebrush.

Compass bearing: frequency baseline 0 degrees magnetic.

Footmark (first frame placement) 5 feet, footmarks (frequency belts) Line 1 (11ft), line 2 (34ft), line 3 (59ft), line 4 (71ft), line 5 (95ft).

LOCATION DESCRIPTION

From the yield sign east of the town of Yost, travel south and then west towards Bally Mountain for 1.0 miles. Stay right and continue for 3.4 miles. Stay left and travel 2.4 miles. Take a left and continue 1.6 miles to a witness post. From the witness post to the 0' stake, walk 7 paces at 260 degrees magnetic. The baseline runs 0 degrees magnetic.



Map Name: Park Valley '15

Diagrammatic Sketch

Township 15N, Range 25E, Section 4, UTM: 2-96-546E 46-49-400N

DISCUSSION

Trend Study No. 1-19

The Bally Mountain study site samples a open west facing ridge top surrounded by pinyon, juniper and curlleaf mountain mahogany. Slope of the ridge is 20% to 25% with an elevation of approximately 7,160 feet. Deer concentrate here during the winter because the slope remains open. Cattle also graze the area and a trail runs through the site. This area is within the Sawtooth National Forest. It is within the combined Raft River\Yost Pastures allotment which is grazed by 1,418 cattle in the spring and fall.

Soil depth is limited to an effective rooting depth (see methods) of about 13 inches. The profile is rocky throughout with mostly gravel and some cobble size rocks. Rock and pavement has a cover value of 18% with only 5% bare soil. Soil texture is a clay loam. Due to the abundant vegetation and litter cover, erosion is not a serious problem.

This open ridge is dominated by a low growing population of black sagebrush. It has an estimated density of 13,432 plants/acre with 54% classified as mature. The average mature plant measures only 5 inches high with a 15 inch crown. Utilization is moderate with only 3% classified as heavily hedged. Vigor is good on all plants except 21% of the decadent shrubs which were categorized as dying. Seedlings and especially young are numerous, yet the population will likely not expand much further due to increasing intraspecific competition. Additional forage is provided by a few scattered mountain big sagebrush, curlleaf mountain mahogany, and rubber rabbitbrush.

The next most abundant shrub consist of broom snakeweed which numbers about 6,412 plants/acre. These are also dwarfed by the harshness of the site and measure, on average, only 3 inches high by 4 inches across. Age class analysis indicate a dynamic reproductive potential. However, they will likely not increase much because of the harshness of the site.

The herbaceous understory is relatively well developed for a black sagebrush site. Five perennial grasses combine to produce 12% cover. Slender wheatgrass, Sandberg bluegrass, and prairie junegrass provide 98% of the total grass cover. Forbs are diverse and abundant. However, most of the common forbs are low value, low growing species which includes stemless goldenweed, desert phlox, and dandelion.

1996 APPARENT TREND ASSESSMENT

Protective ground cover is adequate to prevent most soil erosion on this site. Black sagebrush is abundant with adequate numbers of seedlings and young to maintain the population. Browse trend appears stable. The herbaceous understory is diverse and in good condition for this vegetation type. Some useful forbs are found, but the majority are low value forage species.

HERBACEOUS TRENDS --

Herd unit 01 , Study no: 19

T y p e	Species	Nested Frequency '96	Quadrat Frequency '96	Average Cover % '96
G	Agropyron trachycaulum	334	97	6.34
G	Bromus tectorum (a)	3	1	.00
G	Koeleria cristata	64	24	1.12

T y p e	Species	Nested Frequency '96	Quadrat Frequency '96	Average Cover % '96
G	<i>Oryzopsis hymenoides</i>	14	6	.25
G	<i>Poa secunda</i>	301	89	4.57
G	<i>Sitanion hystrix</i>	2	1	.00
Total for Grasses		718	218	12.31
F	<i>Achillea millefolium</i>	4	2	.03
F	<i>Agoseris glauca</i>	2	1	.00
F	<i>Antennaria rosea</i>	6	3	.06
F	<i>Arabis</i> spp.	37	16	.08
F	<i>Arenaria fendleri</i>	160	55	.97
F	<i>Aster</i> spp.	24	8	.06
F	<i>Astragalus</i> spp.	117	51	1.52
F	<i>Castilleja linariaefolia</i>	36	19	.17
F	<i>Castilleja</i> spp.	11	5	.02
F	<i>Cirsium</i> spp.	3	2	.01
F	<i>Comandra pallida</i>	2	1	.00
F	<i>Collinsia parviflora</i> (a)	275	77	1.78
F	<i>Crepis intermedia</i>	2	1	.00
F	<i>Cryptantha</i> spp.	21	11	.13
F	<i>Cymopterus</i> spp.	4	1	.00
F	<i>Erigeron pumilus</i>	54	27	.26
F	<i>Haplopappus acaulis</i>	88	35	2.61
F	<i>Lappula occidentalis</i> (a)	30	11	.20
F	<i>Lesquerella</i> spp.	4	1	.00
F	<i>Linum lewisii</i>	55	18	.26
F	<i>Lomatium</i> spp.	5	2	.03
F	<i>Machaeranthera</i> spp	4	1	.00
F	<i>Orthocarpus</i> spp. (a)	7	3	.01
F	<i>Penstemon</i> spp.	2	1	.00
F	<i>Phlox austromontana</i>	238	79	5.08
F	<i>Ranunculus testiculatus</i> (a)	13	4	.16
F	<i>Senecio multilobatus</i>	48	25	.28
F	<i>Taraxacum officinale</i>	92	44	.50
F	<i>Tragopogon dubius</i>	18	7	.06
Total for Forbs		1362	511	14.39

BROWSE TRENDS --

Herd unit 01 , Study no: 19

T y p e	Species	Strip Frequency '96	Average Cover % '96
B	Artemisia nova	100	14.38
B	Artemisia tridentata vaseyana	1	-
B	Cercocarpus ledifolius	1	-
B	Chrysothamnus nauseosus	24	.82
B	Chrysothamnus viscidiflorus stenophyllus	1	-
B	Eriogonum microthecum	15	.01
B	Gutierrezia sarothrae	98	3.24
B	Mammillaria spp.	4	.01
B	Pinus monophylla	2	-
B	Tetradymia canescens	1	-
Total for Browse		247	18.48

BASIC COVER --

Herd unit 01 , Study no: 19

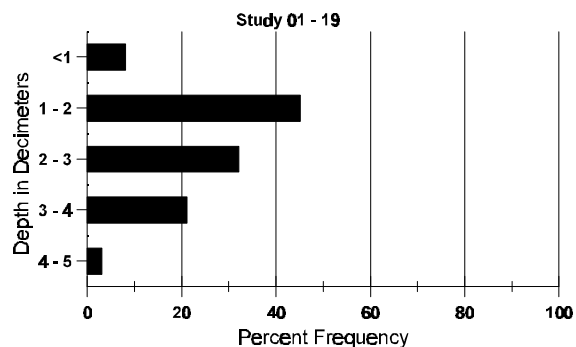
Cover Type	Nested Frequency '96	Average Cover % '96
Vegetation	463	44.50
Rock	316	6.55
Pavement	391	11.31
Litter	483	29.17
Cryptogams	233	2.90
Bare Ground	281	5.23

SOIL ANALYSIS DATA --

Herd Unit 01, Study no: 19

Effective rooting depth (inches)	Temp °F (depth)	PH	%sand	%silt	%clay	%OM	PPM P	PPM K	dS/m
13.4	52.6 (14.5)	7.8	26.7	42.0	31.3	5.0	6.0	297.6	.7

Stoniness Index



PELLET GROUP FREQUENCY --
Herd unit 01 , Study no: 19

Type	Quadrat Frequency '96
Rabbit	2
Deer	13
Cattle	3

BROWSE CHARACTERISTICS --
Herd unit 01 , Study no: 19

A G E	YR	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Artemisia nova																		
S	96	19	-	-	-	-	-	-	-	-	19	-	-	-	380		19	
Y	96	204	44	-	7	-	-	-	-	-	255	-	-	-	5100		255	
M	96	48	934	38	-	-	-	-	-	-	1020	-	-	-	20400	5	15	1020
D	96	8	32	7	5	-	-	-	-	-	41	-	-	11	1040		52	
X	96	-	-	-	-	-	-	-	-	-	-	-	-	-	380		19	
Total Plants/Acre (excluding Dead & Seedlings)												'96		26540	Dec:		4%	
Artemisia tridentata vaseyana																		
Y	96	1	-	-	-	-	-	-	-	-	1	-	-	-	20		1	
M	96	-	-	-	-	-	-	-	-	-	-	-	-	-	0	8	19	0
Total Plants/Acre (excluding Dead & Seedlings)												'96		20	Dec:		-	
Cercocarpus ledifolius																		
Y	96	-	-	1	-	-	-	-	-	-	1	-	-	-	20		1	
Total Plants/Acre (excluding Dead & Seedlings)												'96		20	Dec:		-	
Chrysothamnus nauseosus																		
Y	96	4	3	-	-	-	-	-	-	-	7	-	-	-	140		7	
M	96	12	7	-	-	-	-	-	-	-	19	-	-	-	380	17	24	19
D	96	1	-	4	-	-	-	-	-	-	3	-	-	2	100		5	
Total Plants/Acre (excluding Dead & Seedlings)												'96		620	Dec:		16%	

A G E	YR	Form Class (No. of Plants)									Vigor Class				Plants Per Acre	Average (inches) Ht. Cr.		Total
		1	2	3	4	5	6	7	8	9	1	2	3	4				
Chrysothamnus viscidiflorus stenophyllus																		
M	96	1	-	-	-	-	-	-	-	-	1	-	-	-	20	6	10	1
Total Plants/Acre (excluding Dead & Seedlings) '96 20 Dec: -																		
Eriogonum microthecum																		
Y	96	8	-	-	-	-	-	-	-	-	8	-	-	-	160			8
M	96	11	5	-	1	-	-	-	-	-	17	-	-	-	340	6	10	17
Total Plants/Acre (excluding Dead & Seedlings) '96 500 Dec: -																		
Gutierrezia sarothrae																		
S	96	57	-	-	1	-	-	-	-	-	58	-	-	-	1160			58
Y	96	258	-	-	19	-	-	-	-	-	277	-	-	-	5540			277
M	96	675	-	-	3	-	-	-	-	-	678	-	-	-	13560	3	4	678
D	96	21	-	-	-	-	-	-	-	-	16	-	-	5	420			21
X	96	-	-	-	-	-	-	-	-	-	-	-	-	-	340			17
Total Plants/Acre (excluding Dead & Seedlings) '96 19520 Dec: 2%																		
Mammillaria spp.																		
M	96	1	-	-	3	-	-	-	-	-	4	-	-	-	80	1	2	4
Total Plants/Acre (excluding Dead & Seedlings) '96 80 Dec: -																		
Pinus monophylla																		
S	96	1	-	-	-	-	-	-	-	-	1	-	-	-	20			1
Y	96	2	-	-	-	-	-	-	-	-	2	-	-	-	40			2
Total Plants/Acre (excluding Dead & Seedlings) '96 40 Dec: -																		
Tetradymia canescens																		
M	96	1	-	-	-	-	-	-	-	-	1	-	-	-	20	11	17	1
Total Plants/Acre (excluding Dead & Seedlings) '96 20 Dec: -																		